

A STUDENT FACILITATOR PROGRAM: FIFTH GRADERS
HELPING PRIMARY-GRADE PROBLEM-BEHAVIOR STUDENTS

BY

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This dissertation is dedicated to
Dr. and Mrs. R. S. Bowman, my parents.

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A STUDENT FACILITATOR PROGRAM: FIFTH GRADERS
HELPING PRIMARY-GRADE PROBLEM-BEHAVIOR STUDENTS

By

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This study investigated the effects of a student facilitator program on student helpers and on children who received their help. First, effects of a training program and helping project on fifth-grade student facilitators were examined, with attention to self-concept (Piers-Harris Children's Self Concept Inventory) and student attitudes toward others (Students Attitudes Toward Others Survey). Second, the effects facilitators had on second- and third-grade problem-behavior students were examined regarding classroom behavior (Walker Problem Behavior Identification Checklist) and school attitude (Primary Student School Attitude Test).

A randomized pre-posttest control group design was used with 108 fifth graders and 108 second and third graders

from nine schools. Subjects were randomly assigned to experimental or control groups (E=54, C=54). Fifth grade students in the experimental groups received training and then each met with a problem-behavior student 12 times in a helping project. Data were analyzed using an analysis of covariance and four null-hypotheses were tested.

No significant differences (.05 level) were found in fifth graders' self-concepts (H_{01}) and attitudes toward other people (H_{02}) and these null-hypotheses were not rejected. However, significant differences (.05 level) were found in classroom behaviors (H_{03}) and school attitudes (H_{04}) of second- and third-grade students who received help from the fifth-grade facilitators and H_{03} and H_{04} were rejected. Further, an analysis of covariance on five subscales of the behavior checklist indicated significant differences on subscales One (Acting-Out) and Three (Distractibility). No significant differences were found using sex as a variable.

This investigation provided evidence that fifth-graders can learn to be effective peer facilitators and help primary-grade children to improve their behavior and school attitude. Peer facilitator programs appear to be valuable guidance components in elementary schools.

CHAPTER I

INTRODUCTION

There is nothing so personally strengthening on both sides . . . as for one student to help another, and for each to grow in the process. (Rogers, 1971, p. 217)

As children grow, there are many people and events that influence their development. They live in a world where parents or guardians, teachers, and other adults attempt to help them mature into well-adjusted and capable adults. However, adults are not the only influencers of young people. Children learn many of their behaviors, skills, concepts, and beliefs from other children.

Children can be important resources to other children and make significant contributions to learning. Sometimes, young students help each other spontaneously in the classroom or on the playground. In some instances, help is solicited in stressful times when children seek the understanding and counsel of others near their own age. Other times, children help children as a planned component of the educational process when school professionals utilize peer influence with student assistants, tutors, special friends, and small group leaders.

Educators have recognized the importance of peer influence with young people. Teachers have used children to help other children for thousands of years (Allen, 1976). In the past decade, special school programs have been implemented which utilize systematic procedures for teaching children how to become more effective helpers to their peers. Called peer facilitator or peer counselor programs, they help students to learn to use positive relationships to enhance the learning of others.

Some successful student facilitator programs in elementary schools have been described in the literature. The enthusiasm of these reports has encouraged others to implement similar programs. As a result, there has been a growing number of peer facilitator programs in the schools. This growth has become part of the "peer facilitator movement" and it promises to be a significant force in education within the next ten years.

Purpose

The purpose of this research will be to investigate the effects of a student facilitator program on student helpers and on those who receive help from student helpers. First, the effect of participating in a student facilitator training program and a helping project will be examined. Fifth-grade students will complete a 10-session training program and then work with second- and third-grade students for

12 meetings in a project. Second, the effects of student facilitators working with the second- and third-grade problem behavior students was investigated.

The following research questions received attention.

1. Will the self-concept of fifth-grade students be affected when they receive training and participate in a student facilitator program?

2. Will fifth-grade students' attitudes toward others be affected when they participate in a student facilitator program?

3. Will the classroom behavior of second- and third-grade problem-behavior students be affected by working with fifth-grade student facilitators?

4. Will the school attitude of second- and third-grade problem-behavior students be affected by working with fifth-grade student facilitators?

Need for the Study

Within the past ten years, the professional literature reported successful student facilitator programs in elementary schools (e.g., Bowman & Myrick, 1980; Gumaer, 1973; Mastroianni & Dinkmeyer, 1980; Weise, 1976). However, most of these reports were anecdotal accounts and included little or no research about the effects of the programs. Only four experimental studies (Briskin & Anderson, 1973; Gumaer, 1975; Kern & Kirby, 1971; Vogel song, 1978) were reported in

the literature on elementary school peer facilitator programs. More research is needed to provide information about the impact of these programs. More specifically, studies are needed of the effects of elementary school peer facilitator programs on the student-helpers and on those with whom they work.

Children Helping Children (Myrick & Bowman, 1981b) is a handbook for coordinators of elementary or middle school student facilitator programs. Becoming a Friendly Helper (Myrick & Bowman, 1981a) is a book for young students. The authors recommend beginning, intermediate, and advanced facilitator programs. While some components of these programs have been researched (Bowman & Myrick, 1981), studies are limited and there is a need for more rigorous investigation.

More work is also needed on methods of working with students who have behavior problems in school. Some students exhibit too little control over their behaviors (e.g., disruptive). Other students are inhibited and exert too much control over their behaviors (e.g., withdrawn). These under- or over-controlled behaviors can handicap student potential for academic success (Victor & Halverson, 1976).

Some suggestions have been made for working with problem behavior students. For example, the following strategies have been reported: behavior management (Heady & Niewoehner, 1979; Walker & Holland, 1979); stimulant drug treatment (Barkley, 1979); prosocial television (Elias,

1979); dietary approach (O'Banion, Armstrong, Cummings, & Strange, 1978); cognitive behavior modification (Meichenbaum & Burland, 1979); and punishment (Shaefer, 1976). However, problem-behavior students continue to be a major concern in the schools as evidenced by the attention they receive in the professional literature (Walker & Holland, 1979). There is a need for more development and research.

One possible approach which is receiving more attention in the literature is the use of peer facilitators. Problem-behavior students might be trained as peer facilitators and work to help other students. In the process, the problem-behavior students might improve in their own behaviors (Bowman & Myrick, 1980). Or, other students, trained as facilitators, might use their helping concepts and skills to assist the problem-behavior students. Research is needed to investigate the effectiveness of student facilitator programs to affect change in problem-behavior students.

Definition of Terms

The following terms appear in this study. They are applied according to the subsequent definitions.

Student Facilitators: 'Young people who successfully complete basic preparation or training in helping concepts and interpersonal skills and who work in special projects to assist other students, and sometimes adults, to promote personal and academic growth. The term is used synonymously

with other titles such as peer facilitators and peer counselors.

Facilitator Program: An organized set of procedures and activities designed to train and supervise students in interpersonal skills and concepts which will help them become effective student facilitators.

Problem Behaviors: Student behaviors that interfere or actively compete with successful academic performance. For this study, five categories might be considered as types of problem behaviors: acting-out, withdrawn, distracted, disturbed peer relations, and immature.

Self-Concept: The evaluations which one makes and maintains about one's self which indicate the extent one sees one's self as capable, significant, successful, and worthy.

Attitude Toward Others: One's perceptions and beliefs about other people.

School Attitude: A student's perceptions and beliefs about school.

Organization of the Study

The remainder of this investigation is organized in the following manner. A review of the related literature appears in Chapter II. In Chapter III, the details of the study's methodology are presented. The results of the study appear in Chapter IV. Finally, a summary of this

study, limitations, and possible implications are discussed in Chapter V.

CHAPTER II

REVIEW OF THE RELATED LITERATURE

The following chapter presents a review of the professional literature related to elementary school student facilitator programs and their potential to affect problem-behavior students. The beginning section includes a review of the development of and support for student facilitator programs. In the next section, students who have become facilitators and those whom they have attempted to help are described. Finally, the literature on problem-behavior students is examined, intervention strategies are reviewed, and the use of peers as treatment receives attention.

Student Facilitator Programs

Children have assisted other children in educational settings since ancient times. Teaching students to help other students was used by the Hindus and formed part of the Jesuit method (Saettler, 1968). However, in the past decade professional educators have reconsidered and examined the use of children as helpers. As a result, student facilitator programs have emerged which use systematic procedures to prepare children to be better helpers to others.

These facilitator programs have received wide spread support in the professional literature. For example, the American School Counselor Association (ASCA) published a position statement on peer counseling (ASCA, 1979). This statement concluded,

It is imperative that all Guidance and Counseling Departments in the schools plan, initiate and implement a peer counseling program. Well-trained peer counselors can have a positive effect on students that no one else can provide. . . . Peer counselors can create a tremendous positive impact on the student population. (p. 13)

Development

Educators have used students to assist the learning of other students throughout much of the recorded history of education. However, the current use of training programs for student-helpers probably received early impetus from the Bell-Lancaster method of instruction (Allen, 1976).

The Bell-Lancaster method. Between 1800 and 1850, the Bell-Lancaster method of teaching was used extensively in Europe and in the United States. It involved giving teaching and supervising responsibilities to specially selected students. Called "monitors," each of these students was responsible for the learning and behavior management of his or her own small group of other students (Allen, 1976).

This method of teaching allowed a few teachers to instruct a large number of students. In one variation, a teacher presented the lesson each morning to a group of

50 student monitors who, in turn, each instructed 10 other students during the day. Thus, one teacher was able to teach and be responsible for 500 students (Allen, 1976).

The teaching efficiency of the Bell-Lancaster method contributed to its extensive use for more than 50 years. However, by the end of the 17th century its use had lost popularity among educators. One possible reason for the decline of the method was that teachers had to assume that each student monitor would be an effective teacher. The lack of some basic training in instructional skills forced the student-instructors to rely on their own abilities. Consequently, the effectiveness of some of the monitors was questionable.

The decline of the Bell-Lancaster method was also caused by the increase in the number of professional educators during the period. This resulted in an educational movement toward professionalism. Many educators became critical of the Bell-Lancaster approach because it relied too much upon nonprofessional instruction (Allen, 1976).

Cross-age tutoring. Another historical root of students helping students was cross-age tutoring. One-room school houses were once prevalent in the United States. In these schools it was common for a teacher to assign older students, who had mastered their lessons, to assist younger students with their schoolwork. Cross-age tutoring enabled more individualized instruction for the younger children.

Students who were tutors also benefited from the experience (Devin-Sheehan, Feldman, & Allen, 1976).

As urban centers developed, the one-room school houses were replaced by larger schools where students were grouped by age into different grade levels. In these more specialized schools, cross-age tutoring was more difficult to implement. Like the Bell-Lancaster method, this approach gradually lost its prominence in education.

The emergence of peer facilitator programs. The first peer facilitator or peer counselor programs for students were implemented at the college level (Scott & Warner, 1974). For example, Brown (1965) reported a 40-hour training program which prepared students to be paraprofessional counselors to college freshmen. Student-counselors were trained to assist with orientation, academic instruction, and educational planning. Research results indicated that freshmen who met with the student counselors showed more improvement in study behavior than freshmen in a control group.

In another investigation, Zunker and Brown (1966) compared the effectiveness of college student-counselors to professional counselors. Both groups of counselors completed the same 50-hour training program and used identical materials and counseling activities with counselees. Results indicated that counselees of the student-counselors made greater gains than counselees of the professional counselors.

Later, peer-helper programs in secondary schools were reported. For example, Vriend (1969) studied the effectiveness of high school students in helping other students. Students who were selected to be helpers provided some of their peers with information about careers, self-evaluation, and self-improvement. Post-measures indicated that students who worked with the student-helpers improved more than students in a control group in academic achievement, attendance, and punctuality.

In 1972 Hamberg and Varenhorst's high school peer facilitator program received national recognition. For the training phase of the program, students met in small groups with a professional supervisor. Required skills-practice was an integral part of preparation. Perhaps the most notable contribution of this program was its establishment of the principle that peer facilitators needed training and supervision (Myrick & Erney, 1979).

The work of Hamberg and Varenhorst was followed by others who developed similar programs in high schools. Examples of these programs appeared in the professional literature for the past ten years (e.g., Gray & Tindall, 1978; Leibowitz & Rhodes, 1974; Myrick & Erney, 1978, 1979; Samuels & Samuels, 1975; Sprinthall & Erickson, 1974).

Elementary school programs. Soon after the emergence of peer facilitator programs for high school students, peer programs were described which trained elementary school students to be facilitators. The first of these programs

to be reported in the professional literature was Kern and Kirby's "peer-helper" program (1971). This program was unique not only because of the age of students involved, but also because it presented one of the few experimental studies of elementary school peer programs that have appeared in the professional literature.

In their program, 12 fifth and sixth graders who scored high on a "social power" inventory were selected to receive training. Preparation consisted of three phases: understanding behavior, techniques of changing behavior, and learning the role of peer helpers. In addition, trainees learned how to analyze simple case studies of students with problems.

After training, three peer helpers were assigned to each of four groups of poorly adjusted fifth- and sixth-grade students. During each of the group sessions, a professional counselor was present. The role of the peer helpers was to explain to the target students the purpose of their behaviors using Adlerian concepts. Also, the peer helpers sometimes offered suggestions of more acceptable behavioral alternatives.

The effectiveness of the trained students was investigated using a randomized pretest-posttest control group design. The poorly adjusted fifth and sixth graders were randomly assigned by classroom units to one of three types of treatment: (a) those who work in the groups with the counselor and peer helpers, (b) those who work in groups with

the counselor only, and (c) those who did not participate in the group counseling sessions. Students met for the group counseling in 50-minute periods, one day each week for nine weeks.

Pre- and posttest data were collected on the poorly adjusted students using the Walker Problem Behavior Identification Checklist (WPBIC) (Walker, 1970, 1976) and the California Test of Personality (CTP) (Thorpe, Clark, & Tiegs, 1953). Data were then analyzed using a multiclassification analysis of variance with intelligence scores as a covariate. Results indicated that students who were involved in groups with peer helpers made significantly higher gains in classroom behavior than students in the other two types of groups. An analysis of the personality test yielded nonsignificant differences between the three groups. Kern and Kirby concluded that trained peers can increase a counselor's effectiveness in working with children who have adjustment problems (i.e., students whose teachers score them high on the WPBIC).

Briskin and Anderson (1973) reported an investigation of the effects of sixth-grade boys as contingency managers to disruptive third-grade students. From teacher recommendations, six boys were selected to become the managers. These students participated in six thirty-minute training sessions and were called "learning assistants." After six half-hour training sessions, they managed contingencies in a behavior modification program designed to reduce the

frequency of disruptive behaviors of the two third-grade students.

The intervention continued for eighteen school days. At the conclusion of the program, one student's inappropriate behaviors were reduced from 104 per hour to 1.2 per hour. The other student's inappropriate behaviors were reduced from 64 per hour to .7. In addition, reports from the sixth-grade teachers indicated that the program was helpful to the students who were learning assistants.

Gumaer (1973) described a program which introduced the term "peer facilitator" into the literature. Fifth-grade students selected as "leaders" participated in twelve training sessions. They learned how to clarify, reflect, give feedback, and discuss racial prejudice. After training, the facilitators led discussions in a second-grade classroom on the same topics they had experienced in their training sessions. A pre- and posttest using a Likert-type scale were completed by teachers to study the program. Results suggested that students became more involved in class discussions and in some cases "more thoughtful and sensitive to others" (p. 10).

In 1975 Gumaer researched the effects of becoming a student facilitator using a randomized pretest-posttest control group design. Sixty-four low performing fifth-grade students were randomly selected from four schools. In each school, eight of the low performing students were assigned to an experimental group and became student

facilitators. The other eight students were assigned to a control group. Before and after the program, students were administered the following criterion measures: the School Attitude Inventory, the Coopersmith Self-Esteem Inventory (Coopersmith, 1967), the Devereux Elementary School Behavior Rating Scale (Spivack & Swift, 1967), and a class sociogram. In addition, data were collected on classroom performance; assignments given, handed in, and completed; and school attendance.

A three-week training program prepared students in basic skills and understanding of self-disclosure and facilitation. After training, the peer facilitators led small group discussion groups in third-grade classrooms. These peer-led meetings occurred twice each week for three weeks and lasted 20 minutes each. Following the discussion sessions, the facilitators met with their respective counselors for supervision.

A multivariate regression analysis of the data revealed no significant differences between the experimental and control groups. However, Gumaer noted a positive trend in that teachers, administrators, and students offered positive comments and felt encouraged by the program. Gumaer later described his facilitator training model (PFT) in other publications (Duncan & Gumaer, 1980; Gumaer, 1976).

Another student facilitator program was reported by McCann (1975) in which sixth-grade students were trained in eight one-hour training sessions. These sessions gave

attention to listening skills, nonverbal communication, self-disclosure, reflective listening, and developing alternative courses of action when problems arise. After training, students worked in a school "drop-in center" where they were visited by other students who wanted to discuss their concerns. McCann reported that the program was helpful in several ways including the development of positive student attitudes toward mental health.

In 1976, a special issue of the Elementary School Guidance and Counseling (ESGC) journal was published on the topic of peer facilitators. Myrick recommended in the editorial of this issue that elementary school counselors initiate peer facilitator programs in their schools. Also in this publication, several accounts of successful elementary school peer programs were described. For example, Edwards (1976) reported that students, teachers, and parents strongly supported one such program. In another example, Hoffman (1976) described how comments from parents, teachers, and participants suggested positive results for her program.

Also appearing in this issue of the journal was a report of Kum and Gal's program which trained sixth-grade students to be peer-helpers to other students with "minor concerns" (ESGC, 1976). The student helpers participated in 10 one-hour training sessions which focused on communication and decision-making skills. A self-report questionnaire was later administered to the peer helpers. Student responses indicated an improvement in their attitudes toward school,

teachers, and other people. Also the student participants reported that the program had helped them understand themselves better.

Vogelsong (1978) investigated a training program which focused on teaching empathic skills to fifth-grade students. A randomized pretest-posttest control group design was used to determine the effectiveness of the training. Sixteen students were randomly assigned to skill-training and no-training groups. Training consisted of 10 45-minute sessions conducted once per week. In the first four sessions, students learned about nonverbal communication and empathic acceptance. The following six sessions provided students with practice.

An analysis of variance was used to test hypotheses. Results indicated that the skills-training group improved more in empathic acceptance than the control group children. Further, a contrast of the two student groups revealed significant differences past the .01 level. Vogelsong concluded that effective education in elementary schools might include active and specific skill training of students.

A program was reported by Mastroianni and Dinkmeyer (1980) in which 12 fifth-grade students were selected to become facilitators. Training consisted of 10 30-minute sessions which emphasized facilitative skills and on learning to become involved with others. Though no systematic research was involved, a case report was described of a fifth-grade boy who was behaviorally disruptive in school.

During his participation in the program as a student helper, the boy's behavior and attitude "improved considerably."

Bowman and Myrick (1980) described a facilitator program which prepared students from grades 3-6 to become "junior counselors." Training involved 14 45-minute sessions which focused on the nature of helping, feelings, listening, responding, and problem-solving. After training, students were assessed on their skills and knowledge of helping. Then, junior counselors became involved in individual and group projects to help students as well as teachers. The program was assessed with pre- and posttests using the Piers-Harris Children's Self Concept Scale. Results suggested that all student helpers in the program improved in self-concept.

A systematic facilitator training program for students in grades 5-8 is presented in two books, Children Helping Children (Myrick & Bowman, 1981b) and Becoming a Friendly Helper (Myrick and Bowman, 1981a). The former is a handbook for school professionals interested in coordinating student facilitator programs. The latter is a companion student workbook. The purpose of these materials is to assist students in learning some basic helping concepts and communication skills so they might help others learn more effectively and efficiently. Twenty training sessions are presented on the topics of helper characteristics, careful listening, helpful responding, problemsolving, feedback, assessment, and helper roles.

Three categories of programs are described. A beginning program incorporates the first 10 of the 20 training sessions and allows students to participate in some structured and supervised helping projects. An intermediate program incorporates more training sessions and allows student facilitators to work in less structured projects. An advanced or comprehensive program includes 20 or more sessions and allows students to work in some unstructured and less supervised projects. These training sessions were developed as a result of previous facilitator programs, workshop feedback, and pilot studies (e.g., Bowman & Myrick, 1981).

In addition, several facilitator projects were presented in Children Helping Children. One of these, "The Gainesville Project" involved student helpers as discussion leaders with small groups of younger students. Four sessions of structured "go around" discussions were led by the facilitators where the younger students shared their ideas about friendship. As the children took turns speaking, facilitators used their listening and responding skills. Some of the objectives of the project were to help the children express themselves and learn from each other.

This project was investigated in a pilot study (Bowman & Myrick, 1981) using 10 elementary schools, 60 student facilitators, and 300 second-grade children. Results indicated that the facilitators gained in self-concept and

school attitude, and the younger students indicated that the experience was beneficial and enjoyable.

The Support for Elementary School Facilitator Programs

Reports in the professional literature have recommended the implementation of student facilitator programs in elementary schools. In addition, research has generally upheld hypotheses that elementary school student facilitator programs benefit students. For example, three of the four experimental studies of student facilitator programs indicated that students benefit when these programs are implemented in schools (e.g., Briskin & Anderson, 1973; Kern & Kirby, 1971; Vogel song, 1978).

Only one study (Gumaer, 1975) failed to show any significant differences between experimental and control groups. However, the investigator cited possible reasons for these results. For example, the students selected to become facilitators were all "low-performing" achievers. These students might have been more difficult to train. Regardless of the results of this study, Gumaer continued to support elementary school student facilitator programs in later publications (Duncan & Gumaer, 1980; Gumaer, 1976).

Later, a statement was reported in the professional literature which was not generally supportive of elementary school peer facilitator programs. It appeared in a training manual for high school peer counseling programs (Gray & Tindall, 1978). One paragraph describing elementary school

programs was included in the book which was generally unfavorable. To illustrate, the final statement of this paragraph concluded, "support of a peer counseling program at the elementary-school level is marginal" (p. 25).

Student Helpers and Recipients

When elementary school children were involved in student facilitator programs, observers tended to conclude the experience was positive and productive. More specifically, both the student facilitators and those whom they assisted seemed to benefit. First, this section examines the different kinds of students who have become facilitators in elementary schools. Second, a review of the people whom the facilitators have attempted to help is presented.

Students Who Have Become Facilitators

When student facilitator programs have been implemented in schools, careful attention has been given to the selection of students (e.g., Bowman & Myrick, 1980; Edwards, 1976; Hoffman, 1976). This subsection surveys the professional literature regarding the characteristics of students chosen to be helpers in student facilitator programs. Attention is given to criteria for selecting students. Then, a summary of the grade levels from which students have been drawn for the programs is reported. Also, the ratio of girls to boys who have become student facilitators is reported.

Selection criteria. A variety of selection criteria have been used to determine which students will participate as helpers in elementary school facilitator programs. Though it has been most common for the school counselors to select students who will be involved, teachers have sometimes assisted in the decision process (e.g. Briskin & Anderson, 1973; Hoffman, 1976).

The most common criterion for selecting students to become facilitators has been leadership ability. For example, Kern and Kirby (1971) selected students who scored high on the Social Power Inventory (SPI), which they extracted from an article by Lippitt & Gold (1959). The SPI measures student leadership in terms of ability to influence others in the classroom setting. McCann (1975) chose student leaders for a facilitator program using a sociogram. Each student was asked to name a peer with whom he or she would feel most comfortable discussing problems. Those who were selected the most number of times by their peers became peer-helpers in the program.

Student leadership was also the criterion for selection in Gumaer's first reported program (1973). However, no specific definition of leadership was described. Later, Weise (1976) used "leadership ability" to select students. Weise specified the term using the following student characteristics: respect from classmates, ability to express themselves, and being in touch with their feelings.

In Hoffman's program (1976), the teachers identified students in their classrooms who displayed "leadership among their classmates." To understand this construct, teachers were asked to think of students who initiated small group interactions and activities.

A second criterion for selecting facilitators has been student motivation. For example, the only requirements for becoming a helper in Edwards' program (1976) were the desire to work with younger children and agreement to give up some recess time. In another program, Bowman and Myrick (1980) gave special attention to limiting the number of potential students to those who were more enthusiastic about participating. Also, Mastroianni and Dinkmeyer (1980) selected student facilitators according to their willingness to participate in the program.

Three programs in the literature involved selecting student facilitators who had some difficulties in school. In one program, Mosley (1972) chose students with social or academic needs. "Low-performing" students were selected by Gumaer (1975) to become facilitators. In another example, Bowman and Myrick (1980) included a few behavior-problem students in a facilitator training program.

Other programs did not attempt to select students individually. Instead, they involved intact groups of children as facilitators. For example, Vogelsong (1978) used a classroom of students as facilitators. Also,

Rashbaum-Selig (1976) selected the members of a student safety patrol to be the helpers.

School grade levels. Most of the elementary school student facilitator programs described in the professional literature used students in upper grades as facilitators (e.g., Briskin & Anderson, 1973; Gumaer, 1973; Kern & Kirby, 1971; Mastroianni & Dinkmeyer, 1980; Mosley, 1972). However, other reports indicated success in training younger students (e.g., Bowman & Myrick, 1980; Weise, 1976). Of the eleven programs which reported the grade levels of the student facilitators, six programs used sixth-grade students, nine programs used fifth-grade students, two programs used fourth-grade students, and one program used third-grade students.

Numbers of boys and girls. Of the elementary school programs that reported numbers of males and females selected as peer helpers, most indicated approximately equal proportions of each sex. For example, Hoffman (1976) included four boys and three girls. In another example, Bowman and Myrick (1980) reported involving nine boys and eight girls. However, Briskin and Anderson (1973) reported a unique program which used boys exclusively.

Those Whom the Facilitators Attempted to Help

After student facilitators had been trained, they used their helping concepts and skills to assist others in the school. The coordinator of each program selected those who

were to receive student facilitator assistance according to the goals and objectives of program described by Myrick and Bowman (1981a, 1981b). Elementary school facilitator programs reported in the professional literature described facilitator projects in which student helpers assisted student volunteers, classrooms, and adults in the school. Also, facilitators have worked with other students who had special needs.

Student volunteers. In one program, facilitators met with and assisted other students who volunteered for the help. McCann (1975) described how these facilitators took turns meeting with students in a school "drop-in center." This center consisted of a room open two days each week to fifth and sixth graders. Any of these students could meet with a facilitator in the center on an individual basis during lunch or recess.

Classrooms of students. In other cases, student facilitators worked in helping projects which involved intact classrooms of students. For example, Gumaer's facilitators led small-group discussions in a classroom on the topic of racial conflict (1973). Later, Gumaer (1975) used facilitators to lead small-group discussions in third-grade classrooms. Weise (1976) reported using fourth-grade facilitators to lead a second-grade class through an SRA story (Anderson, Lang & Scott, 1970) and a DUSO session (Dinkmeyer, 1970).

Adults in the school. Student facilitators have also used their helping concepts and skills to assist others in

the schools besides their peers. For example, one elementary school program was reported in which student facilitators used listening and problem-solving skills to assist teachers with some of their classroom concerns (Bowman & Myrick, 1980). In another instance cited in the report, one of the third-grade student facilitators used listening skills to assist the school counselor who had arrived one day at school experiencing some unpleasant feelings.

Students with special needs. In several programs, the facilitators have assisted other students who had special needs or problems which might be helped by the involvement of peers. For example, the program described by Hoffman (1976) used student helpers to give cooperative attention to one boy, who was having particular difficulty with "personal adjustment."

In another case, Edwards (1976) reported primary-grade students with special needs were helped when they worked with student facilitators. Once the student helpers completed a training program, they were matched with younger students who needed assistance in handwriting, fine muscle coordination, reading skills, math concepts, verbal expression, attending behavior, or playing behavior.

Student facilitators have been successful in helping other children with several kinds of special needs. However, one need in particular has been of particular concern to professional educators and mental health specialists. Though there has already been a large amount of development

and research, it is well-documented that a major concern still exists for the problem-behavior student.

Problem-Behavior Students

Problem-behavior students handicap their own learning in school (Heady & Niewoehner, 1979). By definition, they exhibit behaviors that interfere, or actively compete, with academic learning (Walker, 1970). Some of these students are inhibited and might receive little individual attention from teachers or peers. Others are aggressive and can disrupt the learning in a whole classroom (Victor & Halverson, 1976).

The Concern

Walker and Holland (1979) reported a current trend in schools towards increased frequency and severity of child behavior problems. They suggested that, "the management of child behavior in school has emerged as one of the most pressing issues facing educators in recent years" (p. 25). This issue poses a challenge for mental health specialists and professional educators. Better methods and strategies need to be developed for working with problem-behavior children in schools.

Longitudinal studies of behavioral problems among children indicated that as many as one out of three boys and as many as one out of five girls exhibit behavior problems. For example, Rubin and Balow (1978) found that

34 percent of the second-grade boys and 19.6 percent of the second-grade girls exhibited behavior problems in schools according to teacher reports. Rubin and Balow reported similar findings for third-grade students. In another investigation (Kelly, Bullock & Dykes, 1977), results indicated that 20.4 percent of the children in grades K-12 were perceived by their teachers to exhibit behavioral disorders.

Another difficulty in working with problem-behavior students has been the impracticality of some of the methods. For example, some of the behavioral management strategies that have been recommended and supported by numerous research studies are not used on a wide-spread basis in the schools (Walker & Holland, 1979). Though the effectiveness of these methods has been demonstrated in many research studies, some teachers perceive them to require too much time for the behavior changes they are able to make (Walker & Holland, 1979). Changing a child's problem behaviors can be a time-consuming process which is sometimes difficult or impossible for teachers to achieve alone. More strategies need to be developed for working with problem-behavior students which are effective and practical when implemented in the schools.

Intervention Strategies

Major advances have been made in recent years in developing and researching treatment approaches for childhood disorders (Kazdin, 1979). Further, many of these advances have been in the area of problem behaviors. A

variety of methods and procedures used to work with students with disfunctional behaviors have been reported.

Behavior management strategies. Perhaps the treatment strategies which have been researched the most have been techniques of behavioral management. Walker and Holland (1979) stated that, "literally hundreds of studies have been reported in the professional literature, documenting the effectiveness and precision of systematic behavior management techniques used in the educational setting" (p. 26). Further, this article defined and elaborated on several behavioral strategies that might be used with problem-behavior students. They included the following examples: setting rules, teacher praise, ignoring, contingency contracting, earning and losing privileges, point systems, time-out, contingency, and combinations of techniques.

However, Cooke and Apolloni (1976) listed some problems that are experienced in some of the behavior management programs. First, they require large amounts of time by an attentive adult to continuously supervise target students. Second, they are difficult to implement effectively because teacher assignments do not allow consistency of supervision. Third, research indicates that when teachers are the sole managers of the contingencies changes in student behavior might not be maintained in the teachers' absences (Lovaas & Simmons, 1969; Redd, 1970).

Other reports have been made of behavior-management programs which have circumvented many of these problems.

Most of these programs involve other people from the target child's environment in the behavior-management process. For example, Barth (1979) described a home-based reinforcement program. Parents were informed each day or week of their children's school performances. Then, reinforcements were given at homes for positive school behaviors.

Stimulant drug treatment. Another strategy for intervening with problem-behavior students has been the use of stimulant drugs. Barkley (1979) reported stimulant drug treatment to be the treatment most commonly used for "hyperactive" children. At the time of his report, stimulants such as Ritalin, Dexedrin, and Cylert were used by approximately 500,000 to 600,000 children especially for behavior management in classroom settings.

Studies of the effectiveness of using stimulants with hyperactive children have indicated that the treatment has been very effective in improving children's classroom behaviors. In addition, studies which compared stimulant drug treatment to behavior-modification programs reported that the two interventions produced similar improvements in on-task behavior of hyperactive children.

However, Barkley warns that school personnel should understand the nature of the side effects which accompany the use of these drugs with children (1979). The most common side effects in children are insomnia and decreased appetite. In addition, some children might exhibit

depression, weepiness, agitation, fearful behavior, and extreme social withdrawal.

It appears that there is widespread support for the use of stimulant drugs with hyperactive children. Though this treatment is often effective in improving children's behaviors, stimulant drugs have many side effects. This intervention for problem-behavior students seems risky when compared with alternative approaches.

Other methods. In addition to behavior management techniques and stimulant drug treatment, several other methods have been reported as successful in improving behavior problems in students. For example, Elias (1979) used "prosocial television." A dietary approach was recommended by O'Banion, Armstrong, Cummings, and Strange (1978). Cognitive behavior modification techniques were described and suggested for use with behavior-problem students by Meichenbaum and Burland (1979). Also, Shaefer (1976) offered recommendations for effective punishment.

Peer interventions. Another approach to working with problem-behavior students has been to use peers to assist in the intervention. Cooke and Apolloni (1976) cited several advantages of using peers to modify children's behaviors over adult-implemented reinforcement programs. First, employing peers in behavioral programs with problem children will allow increased attention for the target children. Second, peers can provide more consistent reactions to problem behaviors of the children throughout

the school day. Third, the peers of a problem-behavior student can manage the contingencies in their teacher's absence. Four behavior modification strategies that could be used by peers to help the students were also described: modeling, peer reinforcement, cooperative programming, and desensitization.

In another report, Hegerle, Kesecker and Couch (1979) used a "behavior game" to reduce inappropriate behaviors among children in a self-contained classroom. The game used peer pressure and team competition as motivators to improve classroom behaviors. The authors implemented the game in one classroom and concluded that it was effective in reducing problem behaviors of the students.

A systematic approach to using children as peer-helpers has been student facilitator programs. Several of these programs reported using trained peer-helpers to assist students with behavior problems. For example, Kern and Kirby (1971) used trained fifth-grade students to help other students in the same grade level who had problem behaviors as indicated by their scores on the Walker Problem Behavior Identification Checklist. In another example, Briskin and Anderson (1973) reported a program which trained students to be contingency managers to two third-grade students described as disruptive, aggressive, hyperactive, and difficult to control. Rashbaum-Selig (1976) focused the efforts of her peer-helpers on one second-grade boy who

exhibited behaviors such as fighting, throwing chairs, and destroying other students' work papers.

Student facilitator programs have shown some value as intervention strategies for problem-behavior students. They have advantages over exclusively teacher directed interventions. They also have not produced adverse side effects such as those from stimulant drug treatments. Research is needed to investigate further the impact of facilitator programs which attempt to improve problem behaviors in students.

CHAPTER III

METHODS AND PROCEDURES

Children can help other children and benefit themselves in the process. Student facilitator programs are based on this concept and some are being implemented in elementary schools in the United States. This study attempted to collect more information on the effects of a student facilitator program on student helpers and on problem-behavior students whom they attempt to help.

Chapter III consists of the methodology for the study. Population and sampling procedures are described. Four major hypotheses and the design used to test them are outlined. In addition, the criterion instruments, procedures, assumptions, and analyses of the data are explained.

Populations and Samples

Populations

Two student populations from nine elementary schools in Alachua county, Florida, participated in this study. An organized facilitator program was implemented in each school and assessed on its effects with both fifth-grade students (N=108) and primary grade problem behavior students (N=108). Each school is racially integrated and has about

a 70% white and 30% black population (with a 10% variance between schools). All schools involved in this study serve children between kindergarten and fifth grade.

Samples

Fifth-grade students. From a population of fifth-grade students, counselors in each of the nine schools identified 14 students for the study. Teachers assisted in the selection and students were chosen who fit the following selection criteria:

1. Availability--can participate in the program and study.
2. Verbal Ability--can express ideas well and in an organized manner.
3. Intellectual Ability--can grasp ideas quickly and be trained in a relatively short period of time.
4. Leadership Potential--have student respect and others listen willingly to them.
5. Motivation--are enthusiastic about becoming a facilitator.
6. Responsibility--can initiate and complete projects with minimal supervision.

Counselors, with the assistance of the investigator, used a table of random numbers to assign the fifth-grade students to two groups. Six students from each school were randomly assigned to the experimental group (E) and were trained as facilitators. Another six were assigned

to a control group (C) and received facilitator training during this study. The remaining two names were alternates and assigned, if needed, before pretests are administered.

Second- and third-grade students. From the second- and third-grade classes that were available to participate in the study, each counselor randomly selected two of the classrooms. One class provided six problem-behavior students for the experimental group (E') and the other classroom provided six problem-behavior students for the control group (C').

Students were selected for the study who exhibit at least one of the following behavioral categories (adapted from Walker, 1970):

1. Acting-Out: Disruptive, aggressive, or defiant (e.g., teasing, provoking fights, interrupting others).
2. Withdrawal: Restricted functioning or avoidance behavior (e.g., does not initiate relationships with other children).
3. Distractibility: Short attention span, inadequate study skills, or non-attending (e.g., frequently stares blankly into space).
4. Disturbed Peer Relations: Inadequate social skills, negative self-images, or compulsive (e.g., expresses concern about being lonely, unhappy).
5. Immaturity: Dependent or regressive (e.g., reacts to changes in routine with head or stomach aches).

Second- and third-grade students in the experimental group participated in a "special friend" project with the fifth-grade students. Those second- and third-grade students in the control group did not participate in the project during this study.

Hypotheses

The following major null hypotheses were tested.

Ho₁: There will be no significant difference between experimental and control groups of fifth-grade students in self-concept, as measured by the Piers-Harris Children's Self Concept Inventory.

Ho₂: There will be no significant difference between experimental and control groups of fifth-grade students in attitudes toward others, as measured by the Student Attitudes Toward Others Survey.

Ho₃: There will be no significant difference between experimental and control groups of second- and third-grade problem-behavior students in classroom behavior, as measured by the Walker Problem Behavior Identification Checklist.

Ho₄: There will be no significant difference between experimental and control groups of second- and third-grade problem-behavior students in school attitude as measured by the Primary Student School Attitude Test.

Research Design

The hypotheses were tested based upon data derived from a randomized pretest-posttest control group design (Campbell & Stanley, 1963). A summary of this experimental design is presented in Table 3-1.

This design has many advantages and is frequently used in research (Kerlinger, 1973). It controls for all eight threats to internal validity (Campbell & Stanley, 1963). However, it has some limitations which decrease the external validity of the experiment.

The source of limitation for the design is the pretesting which could sensitize the subjects to the treatment. However, pretesting is believed by the investigator to be justified in this study because of its usefulness as a covariate for analyses and because of its capacity to provide descriptive information on the initial groups.

The Impact of the Program on Fifth-Grade Students

The effects of a program on fifth-grade students as facilitators were investigated using the design described above. Students were first randomly assigned to experimental and control groups and pretested (Weeks 1-2). The experimental treatment for the fifth-grade students began with the student facilitator training program (X_1 : Weeks 3-9). The experimental treatment continued as the facilitators then work with second- and third-grade

TABLE 3-1

SUMMARY OF RESEARCH DESIGN

Weeks	1-2	3-7	8-9	10-13	14
E' 5th graders	(R) $O_{A_1;B_1}$	X_1	X_1 (cont.)	X_1 (cont.)	$O_{A_2;B_2}$
C' 5th graders	(R) $O_{A_1;B_1}$	-	-	-	$O_{A_2;B_2}$

E' 2nd & 3rd graders			(R) $O_{C_1;D_1}$	X_2	$O_{C_2;D_2}$
C' 2nd & 3rd graders			(R) $O_{C_1;D_1}$	-	$O_{C_2;D_2}$

X_1 = The student facilitator program treatment for fifth-grade students (training + project).

X_2 = The facilitator program treatment for second- and third-grade students (project).

O_A = Piers-Harris Children's Self Concept Inventory.

O_B = Student Attitude Toward Others Survey.

O_C = Walker Problem Behavior Identification Checklist.

O_D = Primary Student School Attitude Test.

problem-behavior students in the project (X_1 : Weeks 10-13). The control groups of fifth-grade students received no treatment. Finally, posttests were administered to experimental and control groups of fifth-grade students (Week 14).

The Impact of the Program on Second- and Third-Grade Students

The effects on second- and third-grade students were also studied using the randomized pretest-posttest control group design. Problem-behavior students were selected and classrooms were randomly assigned to experimental and control conditions and pretests were administered (Weeks 8-9). The experimental treatment for second- and third-grade students consisted of a project with the fifth-grade student facilitators (X_2 : Weeks 10-13). The control groups of second- and third-grade students did not receive the treatment. Finally, the experimental and control groups of younger students were posttested (Week 14).

Instruments

This study included four criterion measures. Two instruments were administered to each student population. The Piers-Harris Children's Self Concept Inventory measured self-concepts of the fifth-grade students. The Student Attitude Toward Others Survey was developed by the researcher. It measured the attitudes of the fifth-grade students toward other people.

The Walker Problem Behavior Identification Checklist was completed by teachers of the second- and third-grade problem-behavior students. It measured the behaviors of the children which interfere or compete with learning. The Primary Student School Attitude Test was developed by the investigator to measure the attitudes of younger students toward their schools. What follows is a more detailed description of each of these instruments.

Piers-Harris Children's Self Concept Inventory

The Piers-Harris Children's Self Concept Inventory (Piers, 1969) was developed by Ellen Piers and Dale Harris and was designed to measure self-concept of students in grades three through twelve. The inventory was intended primarily for research on children's attitudes and correlates of these attitudes. Fifty statements are included which are read aloud and repeated to the children as they follow along and respond with a "yes" or "no" to each statement. Administration requires approximately 15-20 minutes. An answer key is provided in the PHCSCI manual and high scores indicate positive self-concepts.

Content validity for the PHCSCI was built into the scale using children's self-reports as the universe for test items. Convergent validity was tested using other self-concept instruments. For example, Piers reported a high correlation between the PHCSCI and the Coopersmith Self-Esteem Inventory. A pearson r of .85 was reported.

The majority of reliability data provided for the PHCSCI came from the original standardization sample. The internal consistency was tested using the Kuder-Richardson Formula 21, which resulted in coefficients ranging from .78 to .93. Stability of the revised scale was tested using 244 fifth graders. Two-month and four-month test-retest coefficients of .77 were found. More recent studies of the inventory's stability confirmed correlates greater than .70 for five months or less. Studies of the PHSCI using shorter periods of time have reported test-retest correlates of .80 and over.

Buros' The Seventh Mental Measurements Yearbook provided a generally favorable review of the PHCSCI. It stated, "The authors not only have produced a psychometrically adequate scale, but have written about it in a direct and honest manner" (Bentler, 1972, p. 386).

However, the review also described some limitations of the inventory. For example, the standard error of measurement requires at least a 10-point change of a student's score before a significant difference in self-concept can be concluded. Self-concept is a construct which refers to a set of self-attitudes that are relatively stable. As a result, it has been difficult for interventions to make significant changes in student scores on the PHCSCI.

Several studies have failed to show significant changes using this instrument (Bentler, 1972).

However, the instrument is considered appropriate for this study because the experimental treatment is intensive. Though the intervention is of relatively short duration, pilot studies have suggested that the student facilitator program might change student self-concept enough to make a significant score change on this instrument (Bowman & Myrick, 1980, 1981).

Student Attitudes Toward Others Survey (SATOS)

The Student Attitudes Toward Others Survey is an instrument designed by the investigator to measure third-through eighth-grade students' attitudes toward other people. A copy of this survey appears in Appendix C. Twenty-four test items are included which are read to the students while they read them silently. After each item, students respond on a Likert-type scale of strongly agree, agree, unsure, disagree, and strongly disagree.

The SATOS was developed using the following procedures. Eight categories of student attitudes toward others were identified using a review of the literature and the investigator's experience in schools. Then, test items were written for the categories of attitudes toward people who are "different from me," which include Sex (items 2, 8); Race (items 20, 21); Beliefs (items 4, 24); and Physical Appearance (items 12, 18). Other categories included

attitudes toward People With Problems (items 16, 17, 19, 23); People of Varying Age Levels (items 5, 6, 7, 9, 10, 15, 17); People I Don't Know (items 3, 13); and People in General (items 1, 11, 14, 22). Half the items for each category were phrased positively and half negatively. Finally, the test items were randomly ordered using a table of random numbers.

The reliability of the SATOS was investigated prior to use in this investigation. A test-retest correlation study was performed to determine the stability of the SATOS. Fifty children from two fifth grade classrooms were administered the SATOS and readministered the same instrument one week later. These students were selected from a school which was independent of those participating in the investigation of the facilitator program. A Pearson r of .75 was obtained.

Personality tests, interest inventories and other similar instruments usually have test-retest coefficients averaging in the range of .70-.80 (Noll, 1965). The reliability of the SATOS might therefore be considered average for instruments of its kind. However, the true reliability of the SATOS is probably higher than .75 since this value was most likely depressed by the limited variance of individual differences between subjects. That is, since the test-retesting was administered only to children of one grade level from one school, the calculated Pearson r was probably lowered.

Reliability coefficients of at least .75 may be considered sufficient to make fairly accurate comparisons between groups (Noll, 1965). Therefore, the Pierson r obtained for the SATOS suggests that the instrument is stable enough over time to be useful for this research.

In addition, the standard error of measurement was calculated to provide an additional value to use in making interpretations of research results. The following formula was used (Noll, 1965):

$$SE_{\text{meas}} = SD_t \sqrt{1 - r_{tt}}$$

The SATOS was found to have a standard error of measurement of .21.

Walker Problem Behavior Identification Checklist (WPBIC)

The Walker Problem Behavior Identification Checklist was developed by Hill Walker for use in the elementary school (1970, 1976). Fifty observable and operational statements are included which describe student behaviors and which are responded to by the classroom teacher. Each statement is responded to by indicating in the right hand column whether or not the behavior has been observed in the child's response pattern during the last two-month period.

The instrument may be hand-scored and the following interpretations are made. If subjects receive a total score of 21 or higher they are classified as disturbed. Scores of less than 21 suggest students are not disturbed. The manual points out that a student's scores should also be examined on each of five categories listed in the manual. A Profile Analysis Chart is provided with the test to help the test administrator focus on student scores for each category.

These five categories or factors were identified in the test as a result of a Varimax Orthogonal rotation factor analysis. Data were obtained from a normative sample of 534 pupils. The factors resulting were identified as (a) Acting-out (disruptive, aggressive, defiant); (b) Withdrawal (restricted functioning, avoidance behavior); (c) Distractability (short attention span, inadequate study skills, non-attendance); (d) Disturbed Peer Relations (inadequate social skills, negative self-image, compulsive); and (e) Immaturity (dependent).

Contrasted-group validity was established for the WPBIC by defining and comparing two independent groups of students on the construct of behavior disturbance. From a sample of 534 pupils, 38 were identified as behaviorally disturbed according to nontest criteria. These 38 subjects were matched with students from the normative sample. When the WPBIC had been administered to all the students, a

significant difference was found between the groups which surpassed the .01 level.

Criterion validity was also reported for the WPBIC. A biserial correlation was used to assess the degree of relationship between the WPBIC scores and the behavior disturbance construct as measured by nontest criteria. A significant difference was found between two such groups of students at the .01 level. In addition, the author reports a predictive efficiency index of .33 for the instrument. This supports the use of the instrument to predict behavior disturbance in school children.

The reliability of the Walker Problem Behavior Identification Checklist was estimated by the Kuder-Richardson split-half method. This procedure yielded a coefficient of .98 with a standard deviation of 10.53 and a standard error of measurement of 1.28. Thus, the instrument is considered to have high reliability.

Primary Student School Attitude Test (PSSAT)

The Primary Student School Attitude Test was designed by the investigator to measure the school attitudes of primary grade students. A copy of the instrument appears in Appendix D. Twenty-eight items are included which are each read and re-read to the students. After listening to a statement, students respond on a Likert-type scale consisting of drawings of faces with different expressions.

Students listen to each statement and respond to it by placing an "X" on one of five faces to show if they strongly agree, agree, are unsure, disagree, or strongly disagree. The X is placed on the face with the big smile if they strongly agree with the statement. The face with the little smile is chosen if they agree. If the student is unsure, the X is put on the middle face with the horizontal mouth. Students show that they disagree by placing the X on the face with the little frown. They select the face with the big frown if they strongly disagree.

In developing items for the test, the investigator drew upon a similar instrument that was used in a pilot study (Bowman & Myrick, 1981). In addition, seven categories were identified using a review of the literature on school attitude and from the researcher's experiences in schools. These categories were attitudes toward My Teachers (items 5, 6, 16, 11), My Abilities to Succeed in School (items 4, 22, 24, 28), My Behavior in School (items 2, 7, 8, 9), My School When I Have Problems (items 17, 18, 20, 27), My Learning in School (items 3, 13, 14, 19), Other Students (items 1, 12, 15, 25), and My School in General (items 10, 21, 23, 26). Four test items were developed for each category, two phrased positively and two phrased negatively. Then, a table of random numbers was used to arrange the order of the test items.

The reliability of this instrument was estimated using similar procedures described in this chapter for the

Student Attitudes Toward Others Survey. However, the PSSAT was administered to 40 second-grade students from two classrooms. A Pierson r of .78 was obtained.

For reasons similar to those stated in the description of the SATOS, this coefficient is probably lower than the true value. Therefore, the stability coefficient .78 can be considered average to moderately high for instruments of this type and is considered stable enough for this research.

The standard error of measurement was also calculated in the same manner used in the SATOS study. The PSSAT was found to have a standard error of measurement of .24.

Procedures

This study began in November, 1981. It encompassed approximately 14 school weeks and was completed in March, 1982. A summary of the procedures and the weeks they took place is presented in Table 3-2.

The elementary school counselors involved in the study were coordinators of the student facilitator programs. Before the study, counselors attended two half-day workshops which familiarized them with setting-up, implementing, supervising, and evaluating student facilitator programs. These workshops also described the counselors' responsibilities in the study.

Later, the researcher met with the counselors to (a) assist in randomly assigning fifth-grade students and clarify test administration of fifth-grade students,

TABLE 3-2
SUMMARY OF PROCEDURES

Week #	Events
1-2	Counselors meet to assign fifth-grade students and to review information on testing. Pre-testing of fifth-grade students. Orientation meeting for student facilitators.
3	Training sessions 1 and 2.
4	Training sessions 3 and 4.
5	Training sessions 5 and 6.
6	Training sessions 7 and 8.
7	Training session 9. Review session and preparation for Christmas vacation.
----- Christmas Vacation -----	
8	Counselors meet to receive more testing information and to examine procedures for the facilitator project. Review sessions for student facilitators.
9	Training session 10 and final preparations for the project. Pre-testing of the problem behavior students.
10	Project meetings 1-4 and supervision session for facilitators.
11	Project meetings 5-8 and supervision session for facilitators.
12	Project meetings 9-10.
13	Project meetings 11-12.
14	Posttesting of both student populations. Counselors assemble for a final meeting.

- (b) provide information on testing of the younger students and make preparations for the peer facilitator project, and
- (c) collect final data on both student populations.

Pre-Training (Weeks 1-2)

Before beginning the sessions for training the student facilitators, counselors randomly assigned fifth-grade students to experimental and control groups. These students were pretested using the Piers-Harris Self Concept Inventory and the Student's Attitude Toward Others Survey. Then, those who are assigned to the experimental groups will meet with their counselors for an orientation session. The agenda for this session is outlined in Children Helping Children in Chapter V (Myrick & Bowman, 1981b).

Student Facilitator Training (Weeks 3-9)

Training of student facilitators followed the 10 sessions of the Beginning Program described in Children Helping Children (Myrick & Bowman, 1981b) and is outlined in Appendix A of this report. As described in these training sessions, each student facilitator received a copy of Becoming a Friendly Helper (Myrick & Bowman, 1981a) and worked through the first three chapters. These sessions occurred approximately two times each week with 30-45 minutes for each session. Fifth-grade students in the control group did not receive this treatment during the study.

The first eight training sessions were completed with two sessions each week. Session 9 and a review meeting occurred the following week and provided time for assessment and review of the concepts and skills taught in the program. When the students returned to school in January (Week 8) at least one more review session occurred.

During the ninth week of this investigation, the counselors prepared facilitators for working with the second- and third-grade students in Training Session 10. Also, counselors collected pretest data on second- and third-grade problem behavior students using the Walker Problem Behavior Identification Checklist and the Primary Student School Attitude Test.

The Special Friend Project (Weeks 10-13)

After training, student facilitators became involved in a project in which they worked to assist the second- and third-grade problem behavior students in the experimental group (E'). The control group of fifth-grade students and the control group of younger students did not receive this treatment during the study.

The Special Friend Project involves 12 meetings between the facilitators and their younger "special friends." These meetings are described in Appendix B and require four weeks to complete. First, counselors matched each facilitator with a problem behavior student in the experimental classroom. Then, these pairs of students met for four

group sessions (two occurred in Week 10 and two in Week 11) and eight individual sessions (two occurred each week). In addition, student facilitators met with their counselor each week of the project for supervision.

The four group sessions followed the procedures of the "Gainesville Project" which is described in Chapter VI of Children Helping Children (Myrick & Bowman, 1981b). Facilitators led small groups of second- and third-grade students in "go around" discussions of friendship. These discussions occurred in the experimental second- and third-grade classrooms with facilitators and their "special friends" in the same groups.

The student facilitators met with their second- or third-grade students for the eight individual sessions and attempted to utilize positive relationships to help the younger students explore and make some changes in their school experiences. These meetings were partially structured by providing student facilitators with specific tasks to complete during each meeting (see Appendix B).

Post-Testing (Week 14)

One week after concluding the project, the fifth-grade students in the experimental and control groups were administered the posttests. Also, posttesting of second and third graders in experimental and control groups was completed.

Analyses

Following collection of the data, the hypotheses were tested using analyses of covariance (ANCOVA). The ANCOVA will allow tests for significant differences between means for posttest data. It adjusts initial mean differences between the groups by taking in account the correlations between pretreatment data (one or more covariates) and the dependent variable (Kerlinger, 1973). The purpose of this analysis is to reduce error variance in the final measures. This is accomplished by eliminating from the posttest variance the proportion of criterion variance that existed prior to the experiment (Roscoe, 1975). In using the ANCOVA, the investigator assumes that the adjusted error components will be distributed independently, normally, and with homogenous variances among the treatment population.

Testing the Effects on Student Facilitators

Ho_1 and Ho_2 were tested using analyses of covariance. For each hypothesis, the pretest measures served as covariates.

Testing the Effects on Problem-Behavior Students

Ho_3 and Ho_4 were also tested using analyses of covariance. The ANCOVA is recommended for research involving intact groups such as classrooms (Kerlinger, 1973) and is therefore supported for testing differences between the

groups sampled from this population. The pretest measures served as covariates for the analysis of each hypothesis.

CHAPTER IV

RESEARCH FINDINGS

This study investigated the effects of a student facilitator program on fifth-grade students trained as helpers and on second- and third-grade problem-behavior children who worked with the student helpers. Two dependent measures were used to assess each student population. The fifth-grade peer facilitators were pre- and posttested using the Piers-Harris Children's Self Concept Inventory (PHCSCI) and the Student Attitudes Toward Others Survey (SATOS). The younger students who received help from the peer facilitators were pre- and posttested using the Walker Problem Behavior Identification Checklist (WPBIC) and the Primary Student School Attitude Test (PSSAT).

The experimental procedures were implemented in nine elementary schools by the respective school counselors and data were gathered from randomly selected experimental and control groups for both student age levels. Pretest data were complete for all 108 fifth graders and 108 second and third graders.

Posttest data were not complete for some students. Consequently, data were collected from 91 students (E=49,

C=42) on the PHCSCI and 91 students (E=49, C=42) on the SATOS (see Table 4-1). Also, data were analyzed from 91 students (E=46, C=45) on the WPBIC and 86 students (E=45, C=41) on the PSSAT. Four events apparently contributed to the reduction in number of collected data between pre- and posttestings. First, three fifth-grade students and four primary-grade students left school during the study because their families moved. Second, one fifth-grade student and two primary-grade students were absent from school during posttesting and did not return in time to complete the tests. Third, one fifth-grade girl was removed from group training after the first training session because her behavior was not indicative of criteria for becoming a peer facilitator. She was not posttested. Fourth, some posttests were invalidated and not included in the data analyses because of incompleteness or improperly marked answer forms. This accounted for six students on the PHCSCI, six students on the SATOS, three students on the WPBIC and seven students on the PSSAT.

The four instruments used in this study provided data to be used in testing four null-hypotheses related to the effects of the facilitator program on respective student populations. An analysis of covariance (ANCOVA) provided a test for significant differences between experimental and control groups for each hypothesis. Pretests served as covariates and the four null-hypotheses were tested at the .05 level of significance.

TABLE 4-1

NUMBER OF SUBJECTS, UNADJUSTED GROUP MEANS AND STANDARD DEVIATIONS FROM THE PHSCI, SATOS, WPBIC AND PSSAT

Instrument	<u>Experimental Group</u>			<u>Control Group</u>		
	N	Mean	Standard Deviation	N	Mean	Standard Deviation
PHCSCI						
Pretests:	49	61.98	10.54	42	62.98	11.70
Posttests:	49	<u>65.12</u>	9.61	42	<u>66.31</u>	9.35
Difference:		3.14			3.33	
SATOS						
Pretests:	49	3.96	0.49	42	3.86	0.53
Posttests:	49	<u>4.07</u>	0.40	42	<u>3.99</u>	0.44
Difference:		0.11			0.13	
WPBIC						
Pretests:	46	21.23	8.86	45	26.47	12.92
Posttests:	46	<u>14.89</u>	10.71	45	<u>24.29</u>	9.71
Difference:		-6.34			-2.18	
PSSAT						
Pretests:	45	3.50	0.51	41	3.45	0.53
Posttests:	45	<u>3.71</u>	0.64	41	<u>3.42</u>	0.64
Difference:		0.21			-0.03	

One assumption of the analysis of covariance is that the regression line slopes on the predictability of post-test scores from pretests are equivalent for each of the populations beings studied. This common regression slope can be estimated using the following formula (Roscoe, 1975):

$$b_w = SP_w / SS_{wx}$$

where b_w = The common within-groups regression coefficient estimate.

SP_w = Sum of products within groups.

SS_w = Sum of squares within groups.

The test for homogeneity of regression slopes determines whether or not significant differences occur between the regression slopes of each group in the study. According to Roscoe (1975), the analysis of covariance is robust with respect to the assumption of regression homogeneity. When this assumption is violated the ANCOVA test for significant differences tends to be more conservative.

Levels of significance of .10 or .25 are sometimes set for testing regression homogeneity to reduce the probability of making a Type II error. A significance level of .10 was used in this study to test the null-hypothesis that there were no significant differences between regression slopes of the experimental and control groups. The results of testing this hypothesis for groups on each of the four instruments are summarized in Table 4-2.

TABLE 4-2
TESTS FOR HOMOGENEITY OF REGRESSION SLOPES FOR ANCOVAS

Instrument	F	p
PHCSCI	1.40	0.2462
SATOS	0.67	0.5780
WPBIC	1.19	0.3182
PSSAT	0.46	0.7137

The regression slope null-hypothesis was not rejected when data were used from any of the four instruments. This suggested that regression slopes were not significantly different for the experimental and control groups. Thus, data from all instruments in this study met the assumption of regression-slope homogeneity. It was then possible to proceed with the analysis of covariance.

Self-Concept of Student Helpers

H_{01} : There is no significant difference between experimental and control groups of fifth-grade students in self-concept, as measured by the Piers-Harris Children's Self Concept Inventory.

Both experimental and control groups of fifth-grade students increased their unadjusted group means on the PHCSCI (See Table 4-1). Both groups, therefore, moved in a positive direction with respect to self-concept. The experimental group mean increased from 61.98 to 65.12 indicating a positive change of 3.14 points. The control group mean increased from 62.98 to 66.31 which gives a positive change of 3.33 points.

An analysis of covariance was performed on data from the PHCSCI and is summarized in Table 4-3. The p value of .7250 suggested that there was not a significant difference between experimental and control groups at the .05 level. Therefore, the null-hypothesis relating to self-concept of student helpers was not rejected.

TABLE 4-3
SUMMARY OF ANALYSIS OF COVARIANCE ON THE PHCSCI

Source of Variance	df	SS	F	p
Group	1	11.21	0.12	0.7250
Sex	1	68.95	0.77	0.3839
Group X Sex	1	110.30	1.23	0.2713
Error	87	7830.68		

In addition, the analysis of covariance on data from the PHCSCI was extended to test if the treatment had a variable effect on boys and girls. No significant differences were found with sex as an independent variable at the .05 level which was suggested by the p value of .3839. Further, a test for possible interaction between treatment group and sex was performed at the .05 level. The p value of .2713 suggests no significant interaction between these variables.

Student Helpers' Attitudes Toward Others

Ho₂: There is no significant difference between experimental and control groups of fifth-grade students in attitudes toward others, as measured by the Student Attitudes Toward Others Survey.

As illustrated in Table 4-1, students in both experimental and control groups had increased unadjusted group means on the SATOS. Therefore, both groups had a positive change with respect to attitudes toward others. The mean for the experimental group increased from 3.96 to 4.07 suggesting a positive change of .11 points. The control group mean increased from 3.86 to 3.99 suggesting that this group increased its mean by .13 points.

A summary of the analysis of covariance on data from the SATOS is presented in Table 4-4. The p value of .3171 suggests that there was not a significant difference between experimental and control groups at the .05 level. Therefore, the null-hypothesis relating to student helpers' attitudes toward others was not rejected.

TABLE 4-4
SUMMARY OF ANALYSIS OF COVARIANCE ON THE SATOS

Source of Variance	df	SS	F	p
Group	1	0.18	1.01	0.3171
Sex	1	0.09	0.05	0.8220
Group X Sex	1	0.11	0.63	0.4278
Error	87	15.65		

Further, Table 4-4 includes results of an extension of the analysis to include sex as another independent variable. When tested at the .05 level, no treatment effect ($p = .8220$) or interaction ($p = .4278$) was found.

Problem Behaviors of Second and Third Graders

H_{03} : There is no significant difference between experimental and control groups of second- and third-grade problem-behavior students in classroom behavior, as measured by the Walker Problem Behavior Identification Checklist.

Students in both experimental and control groups decreased in their unadjusted means on the WPBIC as summarized in Table 4-1. This indicated that both groups had a reduction in the numbers of problem behaviors as perceived by their teachers. The experimental group decreased from 21.23 to 14.89 giving a difference of -6.34 points. The control group decreased from 26.47 to 24.29 providing a difference of -2.18 points.

The analysis of covariance on data using the WPBIC (total scores) is summarized in Table 4-5. The p value of .0002 suggests that there was a significant difference between experimental and control groups at the .05 level. Therefore, the null-hypothesis relating to problem behaviors of second and third graders was rejected.

When the analysis of covariance was extended to test for the differential effects using sex as an independent variable, no significant differences were found at the .05

TABLE 4-5
SUMMARY OF ANALYSIS OF COVARIANCE ON THE
WPBIC TOTAL SCORES

Source of Variance	df	SS	F	p
Group	1	1580.37	15.38	0.0002*
Sex	1	134.38	1.31	0.2560
Group X Sex	1	250.03	2.43	0.1224
Error	87	8937.88		

*Significant at the .05 level of confidence.

level ($p = .2560$). Further, no interaction was found between treatment group and sex ($p = .1224$).

Since significant differences were found between experimental and control groups using the WPBIC total scores, data from each of the five subscales of the WPBIC were analyzed individually. This analysis was an attempt to determine which categories of behavior might have been affected. Tables 4-6 and 4-7 provide summaries of unadjusted group means, standard deviations and ANCOVAs for each of the five subscales on the WPBIC.

Subscale 1: Acting-Out. On the first subscale (Acting-Out) of the WPBIC the experimental group reduced its unadjusted group mean by 2.42 points while the control group reduced by .13 points (Table 4-6). An analysis of covariance using data from experimental and control groups provided a p value of .0002 which was significant at the .05 level (Table 4-7).

Subscale 2: Withdrawal. The second WPBIC subscale measured behaviors of student withdrawal. As Table 4-6 reveals, the experimental group mean was reduced by 1.48 points while the control group gained .96 points. An analysis of covariance provided a p value of .1147 (Table 4-7) which was not significant at the .05 level.

Subscale 3: Distractibility. The third subscale measured student distractibility. The experimental group had a reduction in group means of 1.48 points while the control

TABLE 4-6

UNADJUSTED GROUP MEANS AND STANDARD DEVIATIONS FROM
SUBSCALES OF THE WPBIC

<u>Subscale</u>	<u>Experimental Group</u>		<u>Control Group</u>	
	Mean	SD	Mean	SD
<u>1: Acting-out</u>				
Pretests	7.31	6.19	11.13	7.95
Posttests	<u>4.89</u>	6.30	<u>11.00</u>	7.38
Difference	-2.42		-0.13	
<u>2: Withdrawal</u>				
Pretests	3.06	4.14	1.89	3.04
Posttests	<u>1.58</u>	2.90	<u>1.93</u>	3.44
Difference	-1.48		0.96	
<u>3: Distractibility</u>				
Pretests	6.15	3.04	7.91	3.24
Posttests	<u>4.67</u>	2.70	<u>6.96</u>	3.07
Difference	-1.48		-0.95	
<u>4: Disturbed Peer Relations</u>				
Pretests	2.17	2.40	2.83	3.70
Posttests	<u>1.73</u>	2.57	<u>2.39</u>	2.91
Difference	-0.44		-0.44	
<u>5: Immaturity</u>				
Pretests	2.69	2.83	2.83	2.90
Posttests	<u>1.79</u>	2.16	<u>1.89</u>	2.47
Difference	-0.90		-0.94	

TABLE 4-7
SUMMARY OF ANALYSIS OF COVARIANCE ON WPBIC SUBSCALES

<u>Subscale</u>	F	p
1: Acting-out	14.74	0.0002*
2: Withdrawal	2.54	0.1147
3: Distractibility	6.72	0.0111*
4: Disturbed Peer Relations	0.63	0.4302
5: Immaturity	0.00	0.9442

*Significant at the .05 level of confidence.

group mean had a reduction of .95 points (Table 4-6). An analysis of covariance provided a p value of .0111 which was significant at the .05 level (Table 4-7).

Subscale 4: Disturbed Peer Relations. The fourth WPBIC subscale (disturbed peer relations) showed a reduction in group means of .44 for both the experimental and control groups. Results of an analysis of covariance of data on this subscale are presented in Table 4-7. A p value of .4302 was found which suggested that there were no significant differences between experimental groups at the .05 level.

Subscale 5: Immaturity. The fifth subscale of WPBIC measured behaviors categorized as immaturity in students. As Table 4-6 reveals, the experimental group mean reduced by .90 points while the control group mean reduced by .94 points. An analysis of covariance provided a p value of .9442 for data in this subscale (Table 4-7). This suggests that there were no significant differences between experimental and control groups at the .05 level using data from this subscale.

School Attitude of Second and Third Graders

H_{04} : There is no significant difference between experimental and control groups of second- and third-grade problem-behavior students in school attitude as measured by the Primary Student School Attitude Test.

Among other data, a summary of unadjusted group means on pre- and posttests using the PSSAT is presented in Table 4-1. The experimental group increased in score from 3.50 to 3.71 indicating a positive change of .21 points. The control group decreased in score from 3.45 to 3.42 indicating a decrease of .03 points.

The analysis of covariance on data provided from the PSSAT is summarized in Table 4-8. The p value of .0369 suggests that there was not a significant difference between experimental and control groups at the .05 level. Therefore, the null-hypothesis related to school attitude of second and third graders was rejected.

Extending the analysis of covariance to include sex as an independent variable revealed no significant differences at the .05 level ($p = .0797$). In addition, no interaction was found between treatment group and sex ($p = .3993$).

Based on analysis of the data, null-hypotheses relating to self-concept (Ho_1) and attitude toward others (Ho_2) of peer facilitators were not rejected. However, null-hypotheses relating to behavior and school attitude of primary grade students were rejected. Further analyses using sex as an independent variable revealed that there were no significant differences in treatment effect and no significant interaction with sex and group using any of the four instruments. In addition, further analyses using the WPBIC data revealed significant differences in primary-grade

TABLE 4-8
SUMMARY OF ANALYSIS OF COVARIANCE ON THE PSSAT

Source of Variance	df	SS	F	p
Group	1	1.82	4.50	0.0369*
Sex	1	1.27	3.15	0.0797
Group X Sex	1	0.29	0.72	0.3993
Error	82	33.15		

*Significant at the .05 level of confidence.

children in the areas of acting-out and distractibility. However, no significant differences were found in withdrawal, disturbed peer relations and immaturity.

CHAPTER V

SUMMARY, CONCLUSIONS, LIMITATIONS, RECOMMENDATIONS AND IMPLICATIONS

Summary

This study investigated the effects of a student facilitator program on student helpers and on children who received help from the student helpers. First, the effects of a training program and helping project were examined on fifth-grade student facilitators, with attention to the variables of self-concept and student attitudes toward others. Second, the effects the trained student facilitators had on second- and third-grade problem-behavior students were examined regarding classroom behavior and school attitude.

A total of 108 fifth-grade students were identified in nine schools (12 per school) and randomly assigned in each school to either an experimental or a control group. Students in the experimental groups (E=54) participated in a 10-session training program followed by 12 project meetings with second- or third-grade problem-behavior students. Control group students from the fifth-grade (C=54) did not participate in either the training or the helping project.

Twelve problem-behavior students from two second- or third-grade classrooms were also identified in each of the same nine schools (N=108). One classroom in each school was randomly assigned to experimental conditions and the other served as the control. Six problem-behavior students from the experimental classroom met for 12 meetings with the trained fifth-grade student facilitators, while those from the control group did not. Thus, there were 108 problem-behavior students in the study ($E' = 54$, $C' = 54$).

The research study lasted 14 weeks. Counselors first assigned students to treatment conditions and then pretested fifth graders during the third week. Weeks three through six were used to complete the first eight training sessions for student facilitators. Weeks seven through nine were interrupted by two weeks of school vacation, but used to complete the ten-session training program. In week nine, counselors pretested the experimental and control groups of primary-grade students. During weeks ten through thirteen, student facilitators met with the second- and third-grade students from the experimental groups. Finally, week fourteen provided time to posttest all students involved in the study.

All fifth-graders were pre- and posttested using the Piers-Harris Children's Self Concept Inventory (PHCSCI) and Students Attitudes Toward Others Survey (SATOS). The primary-grade problem-behavior students were assessed using

pre- and posttests with the Walker Problem Behavior Identification Checklist (WPBIC) and the Primary Student School Attitude Test (PSSAT). The resulting data were analyzed using the analysis of covariance to test significant differences between experimental and control groups. Pretests served as covariates and data were used to test four null-hypotheses at the .05 level of confidence.

The first two null-hypotheses related to student self-concept (Ho_1) and attitudes toward other people (Ho_2) of fifth-grade student helpers. These hypotheses were not rejected. The second two null-hypotheses related to classroom behaviors (Ho_3) and student school attitude (Ho_4) of second- and third-grade students who received help from the fifth-grade facilitators. In this case, both null-hypotheses were rejected (.05).

Since the Walker Problem Identification Checklist (WPBIC) provides five subscales which can be used to study categories of behavior, an analysis of covariance was performed on data from each subscale. Significant differences were found at the .05 level on subscales One (Acting-out) and Three (Distractibility). No significant differences were found on subscales Two (Withdrawal), Four (Disturbed Peer Relations) and Five (Immaturity).

In addition, sex was analyzed as an independent variable and no significant differences were found using data from any of the four instruments. Further, no

significant interactions were found between sex and group on data from any of the instruments.

Conclusions

Some conclusions were reached as a result of this study. First, fifth-grade students can be trained to be effective student facilitators in a relatively short time. Following a systematic training program, the facilitators can implement what they learn and can be effective in making positive changes in other students.

More specifically, peer facilitators can bring about positive changes in the school attitudes of problem-behavior children. In this study, the facilitators helped make changes in the perceptions and beliefs of the primary-grade students who were viewed as classroom problems. As a result, these problem-behavior students' attitudes toward teachers, peers and themselves as learners changed in a positive direction.

Students with negative school attitudes often react in negative ways in the school environment. Their unfavorable perceptions of school frequently predispose them to adopt behaviors that are counter-productive to learning. As a result, some of these students act-out in the classroom while others withdraw. If peer facilitators meet with primary-grade problem-behavior students, the young students can experience changes in their attitudes toward school and

learn to perceive their teachers, peers and own potentials more favorably.

If peer facilitators can have a positive affect on the school attitudes of problem-behavior students, can they also influence the behavior of such students? In this study, fifth-grade facilitators helped change the behavior of primary-grade students. It appears that peer facilitators can specifically help problem-behavior students reduce their tendency to be distracted and their acting-out behavior. Further, when problem-behavior students improve their classroom behavior, it follows that some of them will be less disruptive to other students. Concurrently, students who improve their classroom behavior might also become more successful in school.

Becoming a peer facilitator and working with problem-behavior students can also be beneficial to students who are trained. Although no significant differences were found in peer facilitators' self-concepts or attitudes toward others, the increased group means indicated some positive directions for the fifth graders. Further, the nature of the training program and helping project was such that the facilitators learned some valuable skills and ideas which they might use to benefit themselves. For example, when the student helpers learned and practiced careful listening and helpful responding, they improved their own abilities to understand and communicate with others.

In addition, the experience of working with younger students was a positive one for peer facilitators. Counselors reported that while facilitators were sometimes frustrated and annoyed with the behavior of the younger students, especially in the beginning sessions of the project, they generally found the experiences to be rewarding and fun. The following quotes from student facilitators were shared by the counselors:

Sam: When I first met Harold (his special friend) in the circle group he was bad. He kept rolling around the floor when I tried to talk with him. But it didn't take long 'til he started to really like me. Now we're real good friends and we listen good to each other.

Mary: I felt so sorry for Jimmy. He didn't have any friends and no one seemed to want to play with him. Since I helped him make two new friends, I see him at recess playing with them. That's what makes it fun for me.

Tina: I'm so happy that I got to be special friends with Dori. I wish I had a special friend like that when I was Dori's age.

Leon: At first I wasn't sure about Paul. I couldn't get him to say anything. But about the third time I saw him, he showed me a drawing of a spaceship and we talked about it. Now I have to work to keep him from talking too much.

Younger students also found working with the peer facilitators to be a positive experience. Having a special friend to talk with about their thoughts and feelings was a unique experience for many of these children. During sessions with facilitators, they were able to share feelings and thoughts about school and other topics of interest. In each session, the facilitators used their skills to help the younger students perceive them as caring, accepting,

understanding and trustworthy. As a result, the primary-grade students liked their special friends and were receptive to their influence. For example, counselors shared the following quotes from the primary-grade problem-behavior students:

Carlos: I like my peer facili . . . or what ever you call them. His name is Tim and he's real neat.

Jeniffer: Christy is my special friend who I talk to about my friends and school and stuff. She is nice and I love her.

Terry: I used to get in lots of trouble with Mrs. Robinson, but I don't any more 'cause Lynn helped me not to. But I still get into trouble . . . a little.

Jimmy: Kevin is my special friend. We talk about anything I like and it's fun.

Limitations

This study had the following possible limitations:

1. Training of student facilitators was extended because of interruptions in the schools. For data to be collected from all counselors, an extra two weeks were allowed for three counselors to complete the data collection. However, training procedures and the project were not significantly changed.

2. The fifth-grade peer facilitators selected for this study were already high in self-esteem and attitudes toward others. To show significant gains on these variables using such students might require instruments more sensitive or specific than the two used in this study.

3. One of the instruments used with primary-grade students in this study, the Walker Problem Behavior Identification Checklist, required that teachers indicate their perceptions of student problem behaviors. Therefore, this instrument measured student problem behavior based on teacher perceptions. It was not possible to know if some teachers were influenced by other variables, such as knowledge of the study.

Recommendations

Based on this investigation, the following are recommended:

1. Peer facilitator programs should be implemented in all elementary schools.

2. Facilitator training should include systematic training procedures, careful supervision and planned projects.

3. Further research is needed on peer facilitator programs in the following areas:

How might students trained as facilitators change in academic behaviors, attendance, achievement scores, or sociometric status?

How long will the effects of peer help last?

What is the comparative effectiveness of peer facilitators with other methods of working with problem-behavior students?

What impact would additional training sessions have? For example, how will the addition of the 10 advanced training sessions (11-20) in Children Helping Children (Myrick & Bowman, 1981b) influence peers and their special friends?

What other helping projects might be effective with young students?

Implications

Student facilitators can be important resources to teachers and counselors. With classroom sizes often exceeding 30 students and counselor case-loads of over 500 students, some children are not able to receive the attention they might need. However, with a group of trained students to assist professionals in the schools, academic and guidance services can be expanded to reach more students more of the time.

Also, peer facilitators can deliver relatively short-term interventions which are effective. The time required to make significant changes in students with difficulties might be reduced when peer facilitators participate in the intervention. Further, when peer facilitators are involved in helping projects, significant changes can be made without the cost of additional certified personnel.

In addition, the peer facilitator training program described in Children Helping Children (Myrick & Bowman,

1981b) is a valuable resource to counselors and other educators interested in developing peer helper programs in their schools. The trainer's manual was well received by the counselors in this study. They reported that it was easy to follow and full of suggestions and ideas. Also, the student's handbook, Becoming a Friendly Helper (Myrick and Bowman, 1981a), was helpful to the counselors in that it gave students an additional resource to draw upon outside training sessions. The stories, activities and tasks included in the student book were motivating to the facilitators and saved counselors time in creating many of the training activities themselves.

This study provides evidence that elementary school student facilitator programs can be valuable in education. By drawing upon one of the schools' most valuable resources, the students themselves, these programs enhance learning and offer other benefits to children, counselors and teachers. All elementary schools should implement peer facilitator programs.

APPENDICES

APPENDIX A

FACILITATOR TRAINING SESSIONS FOR A BEGINNING PROGRAM (Adapted from Myrick & Bowman, 1981)

<u>Training Session</u>	<u>Title</u>	<u>Topics Included</u>
Pretrain- ing	Orientation	Program; purpose; procedures; introductions; student re- actions; assignment of books and materials.
1	Friendly Helpers	Friendship; sharing; helping.
2	The Helping Characteristics	Student helpers; four helping characteristics.
3	Skills for Listen- ing	Listening; two of the four guidelines for careful listen- ing.
4	More Listening Skills	Pleasant and unpleasant feel- ings; the other two guidelines for careful listening.
5	Looking at Responding	Helping statements.
6	Asking Open Questions	Open <u>vs.</u> closed questions; practicing open questions.
7	Clarifying and Summarizing	Making responses which show understanding of ideas and events that are expressed; practice.
8	Feeling-Focused Responses	Showing understanding of feel- ings that are expressed; practice.
9	Looking at the Helping Process	Summary and review; practice of helping concepts and skills.
10	Preparing for Beginning Projects	Description of a project; facilitator roles and func- tions; procedures for a project.

APPENDIX B

THE SPECIAL FRIEND PROJECT

<u>Meeting #</u>	<u>Title</u>	<u>Type</u>	<u>Procedures and Facilitator Tasks</u>
1	<u>Getting Started</u>	Group	Facilitators promote introductions, describe procedures, and discuss the ground rules. Then they lead "go arounds" using the following topics: "Tell about a time when you did something with a friend." "Who can remember what someone else in the group said?" (See the "Gainesville Project" in Chapter VI of <u>Children Helping Children</u> (Myrick & Bowman, 1981.))
2	<u>Introduction</u>	Individual	Facilitators introduce themselves and interview their special friends. Special attention is given by facilitators to explain their roles as "special friends." Suggested comments: "I am here to be your special friend. I will meet with you a few times each week at school and will try to help you when you want me to." "What do you like to do most in school?" "What else would you like to talk about today?" Facilitators use their listening skills and helping responses as the younger students talk.
3	<u>What's In a Friend?</u>	Group	Facilitators follow similar procedures to those in the first group meeting. Go around topics: "Who can remember our group's ground rules?" "Today we are going to name some things that you look for in a friend. Let's go around and each person name something."

<u>Meeting #</u>	<u>Title</u>	<u>Type</u>	<u>Procedures and Facilitator Tasks</u>
4	<u>Exploration of School Attitudes</u>	Individual	Facilitators ask their special friends some questions about what they think about school. Suggested questions: "What do you like most about school?" "What do you like least about school?" "How are the other students in your classroom?" "Others in the school?" "How are you with your teacher?" "What do you think about having an older student as a special friend?" "What else would you like to talk about today?"
	<u>Supervision Meeting for Week 10</u>		Facilitators meet with the counselor to discuss their group and individual meetings. Suggested questions for counselors: "What was something that happened that went well?" "That you were unsure about?" "What would you like some ideas or suggestions on?" Students are encouraged to listen to each other's statements and make supportive comments and suggestions. Counselors examine student logs.
5	<u>What Do Friends Share?</u>	Group	Go around topics: "Who can remember our group's ground rules?" "If you could give something to a friend to make them happier, what would it be? Let's go around and each person name something." "If someone could give you something to make you happier, what would it be?"
6	<u>Exploring School Behavior</u>	Individual	Facilitators help their special friends to talk about things they do that help them in school and other things they do which do not help them or which interfere with their success in school. Suggested questions: "What is something you do in school that helps you?" "What are some other

<u>Meeting #</u>	<u>Title</u>	<u>Type</u>	<u>Procedures and Facilitator Tasks</u>
7	<u>Making Friends and Learning About Others</u>	Group	<p>things?" "What are some things you do in school that keep you from doing as well in school as you could?" "What happens when you do them?" "What else would you like to talk about today?"</p> <p>The last group session. Go around topics: "Who can remember the ground rules?" "Tell one way that a person can go about making new friends." "Tell us something you learned about someone in this group from our sessions." "Tell what you liked or didn't like about our group."</p>
8	<u>Exploring Alternatives</u>	Individual	<p>Facilitators help their special friends to talk about other things they might do to help them in school. Suggested questions: "What are some things you could do that might help you in school?" "What else might you do?" Later, facilitators might offer some suggestions.</p> <p>Counselors supervise the facilitators. Continued monitoring of student logs.</p>
9	<u>Supervision Meeting for Week 11</u> <u>Making a Plan</u>	Individual	<p>Facilitators help their special friends to make plans for change. Suggested questions: "What is your next step for changing so that you can help yourself do better in school?" "What will you do today?" "What are some other things you'll do within the next week?" Facilitators use helping responses and offer support and encouragement. Suggestions might also be offered.</p>

<u>Meeting #</u>	<u>Title</u>	<u>Type</u>	<u>Procedures and Facilitator Tasks</u>
10	<u>Plan Follow-up</u>	Individual	Facilitators help their special friends to explore what they did and didn't do regarding their plans. Other plans might be made. Suggested questions: "How did your plan go?"
	<u>Supervision</u> <u>Meeting for</u> <u>Week 12</u>		Counselors supervise the facilitators.
11	<u>Free Discussion</u>	Individual	Facilitators decide how to use this meeting.
12	<u>Concluding the</u> <u>Project</u>	Individual	Facilitators and the special friends share thoughts and feelings about their meetings together. Then, facilitators focus on the positive and give supportive comments and encouragement. An invitation might be given by the facilitators to continue to meet sometimes and talk about things.
	<u>Supervision</u> <u>Meeting for</u> <u>Week 13</u>		Counselors supervise the facilitators and make concluding remarks.

APPENDIX C

STUDENT ATTITUDES TOWARD OTHERS SURVEY (SATOS)

Name: _____

Directions: Read the sentence on the left. Place an "X" on the right to show if you Strongly Agree, Agree, are Unsure, Disagree, or Strongly Disagree.

	Strongly Agree	Agree	Unsure	Disagree	Strongly Disagree
1. I like people who are different from me.	_____	_____	_____	_____	_____
2. I am at ease talking with boys.	_____	_____	_____	_____	_____
3. I am nervous when I'm around students I don't know.	_____	_____	_____	_____	_____
4. It's okay for others to disagree with me.	_____	_____	_____	_____	_____
5. I like the students in my classroom.	_____	_____	_____	_____	_____
6. I could be friends with a younger student.	_____	_____	_____	_____	_____
7. I have difficulty talking with adults.	_____	_____	_____	_____	_____
8. I am uneasy talking with girls.	_____	_____	_____	_____	_____

	<u>Strongly Agree</u>	<u>Agree</u>	<u>Unsure</u>	<u>Disagree</u>	<u>Strongly Disagree</u>
9. I like to be around adults.	_____	_____	_____	_____	_____
10. Students my age aren't very friendly.	_____	_____	_____	_____	_____
11. Most people are basically good.	_____	_____	_____	_____	_____
12. I don't mind being friends with someone who looks a lot different than I do.	_____	_____	_____	_____	_____
13. I like to meet people whom I haven't known.	_____	_____	_____	_____	_____
14. There are more people that I like than there are people that I don't like.	_____	_____	_____	_____	_____
15. I don't like to be around younger students in my school.	_____	_____	_____	_____	_____
16. I can be friends with students who have problems with school.	_____	_____	_____	_____	_____
17. I would rather not be around students who need help.	_____	_____	_____	_____	_____
18. It's hard to be friendly with someone who looks strange to me.	_____	_____	_____	_____	_____
19. I like trying to help others with their problems.	_____	_____	_____	_____	_____

	<u>Strongly Agree</u>	<u>Agree</u>	<u>Unsure</u>	<u>Disagree</u>	<u>Strongly Disagree</u>
20. I don't like to talk with students of a different race.	_____	_____	_____	_____	_____
21. Discussing ideas with students of another race is interesting.	_____	_____	_____	_____	_____
22. Some people are born bad and will never change.	_____	_____	_____	_____	_____
23. I don't like to listen to someone talk about their problems.	_____	_____	_____	_____	_____
24. Others should believe the way I do.	_____	_____	_____	_____	_____

APPENDIX D

PRIMARY STUDENT SCHOOL ATTITUDE TEST (PSSAT)

1. Other students in my school like me.
2. I don't get into very much trouble in school.
3. What I learn in school makes me want to learn more.
4. I am smart in school.
5. My teachers care about me.
6. My teachers are unfair.
7. I do too many bad things in school.
8. I like the way I act in my school.
9. I am too shy in school.
10. I don't like being in school.
11. I like my teachers.
12. Other students in my school care about me.
13. Learning is not very much fun.
14. I like the things we study in school.
15. I have some good school friends.
16. My teachers don't understand me.
17. When I am worried in school, there is someone who will try to help me.
18. No one in my school cares if I feel confused or mixed-up.
19. I don't like to study.

20. There is someone in school who will listen to me talk about my problems.
21. I don't like the things we do in school.
22. I have trouble doing my school work.
23. I'm glad I go to school.
24. Even when I really try, I can't do well in my school work.
25. I don't like the way other students treat me in school.
26. I like my school.
27. When I have problems in school, no one tries to help me.
28. I could be one of the smartest students in my classroom.

REFERENCES

- Allen, V.L. Children as Teachers: Theory and Research on Tutoring. New York: Academic Press, 1976.
- American School Counselor Association. Peer counseling. ASCA Newsletter, 1979, 16(2 and 3), 12-13.
- Anderson, J.L., Lang, C.J., & Scott, V.R. Focus on Self Development. Chicago: Science Research Associates, 1970.
- Barkley, R.A. Using stimulant drugs in the classroom. School Psychology Digest, 1979, 8(4), 412-424.
- Barth, R. Home-based reinforcement of school behavior: A review and analysis. Review of Educational Research, 1979, 49(3), 436-458.
- Bentler, P.M. In The Seventh Mental Measurements Yearbook. Highland Park, NJ: The Gryphon Press, 1972. (Review)
- Bowman, R.P. The peer facilitator movement: Its impact on our schools. Florida Personnel and Guidance Association Guidelines, 1980, 25(2), 2.
- Bowman, R.P., & Myrick, R.D. "I'm a Junior Counselor, having lots of fun." The School Counselor, 1980, 28(1), 31-38.
- Bowman, R.P., & Myrick, R.D. A study of an elementary school student facilitator program in Gainesville, Florida. Unpublished manuscript, 1981.
- Briskin, A.S., & Anderson, E.M. Students as contingency managers. Elementary School Guidance & Counseling, 1973, 7(4), 262-268.
- Brown, W.F. Student-to-student counseling for academic adjustment. Personnel and Guidance Journal, 1965, 43(8), 811-817.
- Campbell, D.T., & Stanley, J.C. Experimental and Quasi-Experimental Designs for Research. Chicago: Rand McNally College Publishing Company, 1963.

- Clarizo, H.F. Primary prevention of behavioral disorders in the schools. School Psychology Digest, 1979, 8(4), 434-445.
- Cooke, T.P., & Apolloni, T. The role of peers in modifying classmates' social behavior: A review. The Journal of Special Education, 1976, 10(4), 451-456.
- Coopersmith, S. The Antecedents of Self-esteem. San Francisco: W.H. Freeman and Co., 1967.
- Devin-Sheehan, L., Feldman, R.S., & Allen, V.L. Research on children tutoring children: A critical review. Review of Educational Research, 1976, 46(3), 355-385.
- Dinkmeyer, D. DUSO (Developing Understanding of Self and Others). Circle Pines, MN: American Guidance Service, 1970.
- Duncan, J.A., & Gumaer, J. Developmental Groups for Children. Springfield, IL: Charles C. Thomas, 1980.
- Edwards, S.S. Student helpers: A multilevel facilitation program. Elementary School Guidance and Counseling, 1976, 11(1), 52-58.
- Elementary School Guidance and Counseling. Special Issue: Peer Facilitators, 1976, 11(1), 1-80.
- Elias, M.J. Helping emotionally disturbed children through prosocial television. Exceptional Children, 1979, 46(3), 217-218.
- Fremont, T.S., & Wallbrown, F.H. Types of behavior problems that may be encountered in the classroom. Journal of Education, 1979, 161(2), 5-24.
- Gray, H.D., & Tindall, J. Peer Counseling. Muncie, IN: Accelerated Development, Inc., 1978.
- Gumaer, J. Peer facilitated groups. Elementary School Guidance and Counseling, 1973, 8(1), 4-11.
- Gumaer, J. Peer-facilitator training and group leadership experiences with low-performing elementary school students. (Doctoral dissertation, University of Florida, Gainesville, 1975). Dissertation Abstracts International, 1976, 36, 5044A. (University Microfilms No. 76-04238, 143)
- Gumaer, J. Training peer facilitators. Elementary School Guidance and Counseling, 1976, 11(1), 26-36.

- Hamberg, B.A., & Varenhorst, B.B. Peer counseling in the secondary schools: A community health project for youth. American Journal of Orthopsychiatry, 1972, 42(4), 556-581.
- Heady, J., & Niewoehner, M. Academic and behavior management techniques that work. Teaching Exceptional Children, 1979, 12(1), 37-39.
- Hegerle, D.R., Kesecker, M.P., & Couch, J.V. A behavior game for the reduction of inappropriate classroom behaviors. School Psychology Digest, 1979, 8(3), 339-343.
- Hoffman, L.R. Peers as group counseling models. Elementary School Guidance and Counseling, 1976, 11(1), 37-44.
- Kazdin, A.E. Advances in child behavior therapy. American Psychologist, 1979, 34(10), 981-987.
- Kelly, T.J., Bullock, L.M., & Dykes, M.K. Behavioral disorders: Teachers' perceptions. Exceptional Children, 1977, 43(5), 316-318.
- Kerlinger, F.N. Foundations of Behavioral Research. New York: Holt, Rinehart and Winston, Inc., 1973.
- Kern, R., & Kirby, J. Utilizing peer helper influence in group counseling. Elementary School Guidance and Counseling, 1971, 6(2), 70-75.
- Leibowitz, A., & Rhodes, D.J. Adolescent peer counseling. School Counselor, 1974, 21(4), 280-283.
- Lippitt, R., & Gold, M. Classroom social structure as a mental health problem. Journal of Social Issues, 1959, 15(1), 40-49.
- Lovaas, O.I., & Simmons, J.O. Manipulation of self-destruction in three retarded children. Journal of Applied Behavior Analysis, 1969, 2(3), 143-157.
- Mastroianni, M., & Dinkmeyer, D. Developing an interest in others through peer facilitation. Elementary School Guidance and Counseling, 1980, 14(3), 214-221.
- McCann, B.G. Peer counseling: An approach to psychological education. Elementary School Guidance and Counseling, 1975, 9(3), 180-187.
- Meichenbaum, D., & Burland, S. Cognitive behavior modification with children. School Psychology Digest, 1979, 8(4), 426-433.

- Mosley, E.M. The case for guidance in elementary schools. Elementary School Guidance and Counseling, 1972, 6(3), 151-152.
- Myrick, R.D., & Bowman, R.P. Becoming a Friendly Helper. Minneapolis, MN: Educational Media Corporation, 1981a.
- Myrick, R.D., & Bowman, R.P. Children Helping Children. Minneapolis, MN: Educational Media Corporation, 1981b.
- Myrick, R.D., & Erney, T. Caring and Sharing: Becoming a Peer Facilitator. Minneapolis, MN: Educational Media Corporation, 1978.
- Myrick, R.D., & Erney, T. Youth Helping Youth: A Handbook for Training Peer Facilitators. Minneapolis, MN: Educational Media Corporation, 1979.
- Noll, Victor H. Introduction to Educational Measurement. Boston: Houghton Mifflin Company, 1965.
- O'Banion, D., Armstrong, B., Cummings, R.A., & Strange, J. Disruptive behavior: A dietary approach. Journal of Autism and Childhood Schizophrenia, 1978, 8(3), 325-337.
- Piers, E.V. Manual for the Piers-Harris Children's Self Concept Scale. Nashville: Counselor Recordings and Tests, 1969.
- Piers, E.V. The Piers-Harris Children's Self Concept Scale: Research Monograph #1. Nashville: Counselor Recordings and Tests, 1977.
- Rashbaum-Selig, M. Student patrols help a disruptive child. Elementary School Guidance and Counseling, 1976, 11(1), 46-51.
- Redd, W.H. Effects of mixed reinforcement contingencies on adults' control of children's behavior. Journal of Applied Behavior Analysis, 1969, 2(4), 249-254.
- Rogers, C.R. Can schools grow persons? Educational Leadership, 1971, 29(3), 215-217.
- Roscoe, J.T. Fundamental Research Statistics for the Behavioral Sciences. New York: Holt, Rinehart and Winston, Inc., 1975.
- Rubin, R.A., & Balow, B. Prevalence of teacher identified behavior problems: A longitudinal study. Exceptional Children, 1978, 45(2), 102-111.

- Saettler, P. A History of Instructional Technology. New York: McGraw-Hill Book Company, 1968.
- Samuels, D., & Samuels, M. The Complete Handbook of Peer Counseling. Miami: Fiesta Publishing Corp., 1975.
- Scott, S.H., & Warner, R.W. Peer counseling. Personnel and Guidance Journal, 1974, 53(3), 228-231.
- Shaefer, C.E. Some guidelines on the effective use of punishment. Child Care Quarterly, 1976, 5(4), 307-313.
- Spivack, G., & Swift, M. Devereux Elementary School Behavior Rating Manual. Devon, PA: The Devereux Foundation, 1967.
- Sprinthall, N.A., & Erickson, V.L. Learning psychology by doing psychology: Guidance through the curriculum. Personnel and Guidance Journal, 1974, 52(6), 396-405.
- Thorpe, L.P., Clark, W.W., & Tiegs, E.W. California Test of Personality. New York: McGraw-Hill, 1953.
- Vacc, N.A. Coping with the behaviorally disturbed child in the classroom. Viewpoints in Teaching and Learning, 1979, 55(3), 29-36.
- Victor, J.B., & Halverson, C.F., Jr. Behavior problems in elementary school children. Journal of Abnormal Child Psychology, 1976, 4(1), 17-29.
- Vogelsong, E.L. Relationship enhancement training for children. Elementary School Guidance and Counseling, 1978, 12(4), 272-279.
- Vriend, T.J. The peer influence model in counseling. Educational Technology, 1969, 9(3), 50-51.
- Walker, H.M. Walker Problem Behavior Identification Checklist Manual. Los Angeles: Western Psychological Services, 1970, 1976.
- Walker, H.M., & Holland, F. Issues, strategies, and perspectives in the management of disruptive child behavior in the classroom. Journal of Education, 1979, 161(2), 25-50.
- Walker, H.M., & Hops, H. The class program for acting out children: R & D procedures, program outcomes and implementation issues. School Psychology Digest, 1979, 8(4), 370-381.

- Weise, R. Diary of a peer facilitator program. Elementary School Guidance and Counseling, 1976, 11(1), 62-66.
- Workman, E.A., & Hector, M.A. Behavioral self-control in classroom settings: A review of the literature. Journal of School Psychology, 1978, 16(3), 227-236.
- Zunker, V.G., & Brown, W.F. Comparative effectiveness of student and professional counselors. Personnel and Guidance Journal, 1966, 44(7), 738-743.

BIOGRAPHICAL SKETCH

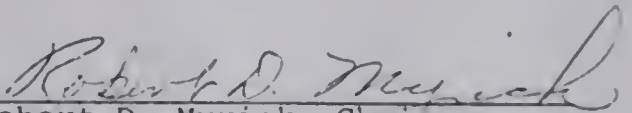
Robert Paul Bowman was born in Kewanee, Illinois, the son of Dr. and Mrs. R.S. Bowman. He graduated from Kewanee High School and worked as a professional musician while attending college. He received his Bachelor of Science degree in biology from Bradley University in 1973.

Robert (Bob) Bowman then became a teacher for students in grades 6-8 in a small rural school in central Illinois. He taught science, math and life skills in this school for three years. During this time, he completed a Master of Arts degree in guidance and counseling at Illinois State University. After receiving his M.A. degree in 1977, he and Denise Bowman were married and moved to a suburb of Chicago. Here, he worked for two years as an elementary school counselor.

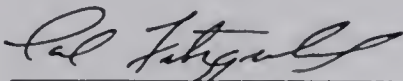
Following his experience as a school counselor, Bob and Denise Bowman moved to the University of Florida and he became a doctoral student in counselor education. During this time, he was a counselor and consultant in private practice and worked with individuals, families, and school systems around Florida. He also published professional articles and coauthored, with Dr. R.D. Myrick, two books and a film on elementary school peer facilitator

programs. Bob Bowman is currently editor of the National
Peer Facilitator Quarterly and, upon the completion of his
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Education department at the University of South Carolina.

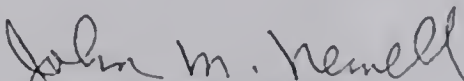
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Professor of Counselor
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This dissertation was submitted to the Graduate Faculty of the Department of Counselor Education in the College of Education and to the Graduate Council, and was accepted as partial fulfillment of the requirements for the degree of Doctor of Philosophy.

August 1982

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